Safety data sheet

according to regulation (EU) Nr. 1907/2006

Date: 03.11.2015
Product: BORPower® NanoFuel ForOne Benzin
Article no.: 8697745430210

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Nano Boron Fuel System Cleaner

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Nano Boron cleaning agent for fuel systems

1.3. Details of the supplier of the safety data sheet

Supplier **NNT BORPower GmbH**
Pechhüttenstraße 6, A-2320 Schwechat/Austria

Manufacturer **NNT Nanotechnologie Bor AR-GE**
Organize Sanayi Bölgesi-Kirklareli/Turkey

Internet www.borpower.net
E-Mail info@borpower.net
Hotline Mo-Fr from 09.00 to 17.00
Tel.: +43 1 342 852 Fax: +43 1 342 852-52

1.4. Emergency telephone number

Austria +43 1 406 43 43 (Gesundheit Österreich GmbH, 24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: F-Highly flammable, Xn-Harmful, Xi-Irritant
R phrases: Highly flammable.
Harmful by inhalation and in contact with skin.
Irritating to eyes and skin.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.

GHS classification

Hazard categories:
Flammable liquid: Flam. Liq. 2
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Aspiration hazard: Asp. Tox. 1
Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements

Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
Harmful if inhaled.
May cause drowsiness or dizziness.
Harmful to aquatic life with long lasting effects**.**

2.2. Label elements

Hazardous components which must be listed on the label

Xylol (o,m,p);
Hydrocarbons, C10-C13,n-alkanes, isoalkanes, cyclene, <2% aromates;
Nano hydroboron

Signal word: **Danger**
Pictograms: **GHS02-GHS07-GHS08**


Flammable


Irritant


Hazardous

Hazard Statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P233	Keep container tightly closed.
P271	Use only outdoors or in a well-ventilated area.
P301/P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P501	Do not discharge into drains or the environment, dispose to an authorised waste collection point.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Mixture of Xylol (o,m,p);
Hydrocarbons, C10-C13,n-alkanes, isoalkanes, cyclene, <2% aromates
and Nano hydroboron

3.2. Mixtures

Hazardous components

EC-No.	Chemical name	Quantity
CAS-No.	Classification	
Index-No.	GHS-Classification	
REACH-No.		
233-136-6	**Nano hydroboron**	**1-5%**
10043-11-5	Xi-Irritant, R36, R37	
	Eye Irrit. 2, H304, H315, H319, H332, EUH 066	
215-535-7	**Xylol (o,m,p)**	**1-10%**
1330-20-7	Xn-Harmful, R20, R22, R36, R38	
601-022-00-9	Flam. liq. 3, Acute tox. 4, Skin irrit. 2, H226, H332, H312, H315	
918-481-9	**Hydrocarbons, C10-C13, isoalkanes, cyclene, <2%aromates**	**1-5%**
64742-48-9	Xn-Harmful, R65, R66	

Full text of R-, H- and EUH-phrases see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Move victim to fresh air. Put victim at rest and keep warm.
In case of difficulties of breathing consult physician.
If victim is at risk of losing consciousness, position and transport on their side.After contact with skin
Take off immediately all contaminated clothing, including underwear and shoes. Subsequently wash off with: water and soap.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
Medical treatment necessary.

After ingestion

Let water be drunken in little sips (dilution effect). Consult physician.

After contact with skin

Take off immediately all contaminated clothing, including underwear and shoes .
After contact with skin, wash immediately with plenty of water and soap.
Rub greasy ointment into the skin.

4.2. Most important symptoms and effects, both acute and delayed

Frequently or prolonged contact with skin may cause dermal irritation.
Irritation of eyes: Irritant effect possible.
After ingestion: Harmful: may cause lung damage if swallowed.
Harmful: danger of serious damage to health by prolonged exposure through inhalation.

4.3. Indication of any immediate medical attention and special treatment needed

Warning about danger of aspiration.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguishing powder, sand, carbon dioxide (CO_2), alcohol resistant foam

Extinguishing media which must not be used for safety reasons

High power water jet.

5.2. Special hazards arising from the substance or mixture

Formation of decomposition products possible.
In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Cool endangered container in case of fire.
Contaminated fire-fighting water must be collected separately.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of fire: Wear a self-contained breathing apparatus and chemical resistant suit.
Keep away from sources of ignition and do not smoke.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.
Beat down gas/vapours/mist with water spray.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Prevent spreading of spillages (e.g. by oil barrier).
Wipe up with absorbent material (eg. cloth, fleece).

6.4. Reference to other sections

See section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.
Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation as well as local exhaustion at critical locations.
Dust must be exhausted directly at the point of origin. When using do not eat, drink, smoke, sniff

Advice on protection against fire and explosion

Keep away from sources of ignition-No smoking. Take precautionary measures against static discharge. Vapours may form explosive mixtures with air.

Further information on handling

Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.
Keep away from sources of ignition. - No smoking.

Advice on storage compatibility

Should be stored seperately from oxidizing agents.
Packaging Material: Plastic
Storage class: TRGS 510: 3

7.3. Specific use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS-No.	Substance	ppm	mg/m³	fibres/ml	Category	Origin
1330-20-7	Xylol (mixed isomers)	50	220		TWA (8h)	WEL

Biological Monitoring Guidance Values (EH40)

CAS-No.	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylol (mixes isomers)	Methyl hippuric acid	650 mmol/mol	Urine	Post shift

8.2. Exposure controls

Protective and hygiene measures

When using do not eat, drink or smoke.
Wash hands before breaks and after work.

Respiratory protection

In case of accumulation of fumes/aerosols, provide adequate ventilation. In case of insufficient ventila tion, wear suitable respiratory equipment.

Eye/face protection

Wear tightly sealed safety glasses against possible splashes into the eyes. (EN 166)

Skin protection

Wear suitable protective clothing according to EN 465.

Hand protection

Tested protective gloves are to be worn: NBR (Nitrile rubber). FKM (Fluoroelastomer (Viton)). (EN374)

Other information

See section 6 and 7.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Typical Value	Test method
Physical state	liquid	ASTM D97
Color	Cream -colored	ASTM D1500
Odour	characteristic	
Vapour pressure (at 20° C)	20 hPa	ASTM D6683-01
pH as is	n.a.	
Flash point	61° C	ASTM D92
Melting point	Not determined	
Boiling point	120-150° C	
Lower explosion limits	>0,4 Vol.%	
Upper explosion limits	>6,0 Vol.%	
Evaporation rate	Not determined	
Odour Threshold	Not determined	
Vapour density	Not determined	
Ignition temperature	>200° C	DIN 51794
Density (at 20°C)	0,88 g/ml	ASTM D6683-01
Water solubility	insoluble	ASTM D1401

9.2. Other information

No data.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No decomposition when used as intended.

10.3. Possibility of hazardous reactions

No dangerous reactions are known.

10.4. Conditions to avoid

Only use the material in places where open light, fire and flammable sources can be kept away. No decomposition when used as intended.

10.5. Incompatible materials

Oxidizing agents. Acid, concentrated. Alkalis (alkalis), concentrated.

10.6. Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS-No.	Chemical name					
	Exposure toutes	Method	Dose		Sepcies	Source
10043-11-5	Nano hydroboron					
	Dermal	LD50	1	mg/kg	Rabbit	
1330-20-7	Xylol (o,m,p)					
	Oral	LD50	4300	mg/kg	Rat	
	Dermal	LD50	3200	mg/kg	Rabbit	
	Inhalative (4h) vapour	LC50	21,7	mg/l	Rat	
	Inhalative aerosol	ATE	1,5	mg/l		
94742-48-8	Hydrocarbons, C10-C13,n-alkanes, isoalkanes, cyclene, <2% aromates					
	Oral	LD50	>5000	mg/kg	Rat	
	Dermal	LD50	>5000	mg/kg	Rabbit	
	Inhalative	LD50	>4,9	mg/l	Rat	

Irritation and corrosivity

After skin contact: Frequently or prolonged contact with skin may cause dermal irritation. Irritation of eyes: Irritant effect possible. After ingestion: Harmful: May cause lug damage if swallowed.

Sensitising effects

No danger of sensitization.

SECTION 12: Ecological information

12.1. Toxicity

CAS-No.	Chemical name					
	Aquatic toxity	Method	Dose		Time	Species
1330-20-7	**Xylol (o,m,p)**					
	Acute fish toxicity	LC50	26,7	mg/l	96h	Pimephales promelas
64742-48-9	**Hydrocarbons, C10-C13, isoalkanes, cyclene, <2% aromates**					
	Acute fish toxicity	LC0	1000	mg/l	96h	Oncorhynchus mykiss
	Acute algae toxicity	EC0	1000	mg/l	72h	Pseudokirchneriella subcapitata
	Acute daphniatoxicity	EC0	1000	mg/l	48h	Daphnia magna

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Swims on the water.
Low potential of bio-accumulation.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assesment

No information available.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not dispose with household waste.
Do not empty into drains or the aquatic environment.
Have to add a Special treatment in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.
Arrange about the exact waste code with the local waste disposal expert.

Waste disposal number of waste from residues/unused products

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.

Waste disposal number of used product

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.

Contamined packaging

Contaminated packing must be completely emptied and can be re-used following appropriate cleaning.
Do not pierce, cut up or weld unclean container. (Explosion hazard.)

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3. Transport hazard class(es)	3
14.4. Packing group	II
Hazard label	3

Classification code	F1
Special Provisions	274 601 640C
Limited quantity	1 L
Transport category	2
Hazard No.	33
Tunnel restriction code	D/E

Inland waterways transport (ADN)

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
Transport hazard class(es)	3
Packing group	II
Hazard label	3

Classification code	F1
Special Provisions	274 601 640C
Limited quantity	1 L

Marine transport (IMDG)

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
Transport hazard class(es)	3
Packing group	II
Hazard label	3

Marine pollutant	-
Special Provisions	274
Limited quantity	1 L
EmS	F-E, S-E

Air transport (ICAO)

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
Transport hazard class(es)	3
Packing group	II
Hazard label	3

Special Provisions	-
Limited quantity Passenger	1 L
IATA-packing instructions Passenger	353
IATA-max. quantity-Passenger	5 L
IATA-packing instructions-Cargo	364
IATA-max. quantity-Cargo	60 L

14.5. Environmental hazards

Dangerous for the environment: NO

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Contains: 1-10% of xylol (o,m,p);
1-5% of hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclene, <2% aromates;
1-5% of nano hydroboron

National regulatory information

Water contaminating class (D): 2-water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Full text of R phrases (Number and full text)

R10	Flammable.
R11	Highly flammable.
R20/21	Harmful by inhalation.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R65	Harmful: May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.

Full text of H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.
The receiver of our product is singulary responsible for adhering to existing laws and regulations.

Legends

ACGIH	American Conference of Gouvernement and Industrial Hygienists
ADR	Accord europeen relatif au Transport international des marchandises Dangereuses par Route (Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße)
AGW	Arbeitsplatzgrenzwert
ARW	Arbeitsplatzrichtwert
Alkoholbest	Alkoholbeständig
Anm.	Anmerkung
allg.	allgemein
AOEL	Acceptable Operator Expo Sure Level
ATE	Acute Toxicity Estimate (Schätzwert Akuter Toxizität gemäß der Verordnung (EG) Nr. 1272/2008 (CLP))
BG	Berufsgenossenschaft
BGV	Berufsgenossenschaftliche Vorschrift
BGW	Biologischer Grenzwert (TRGS 903, BRD)
BGW/VLB	Biologisch grenswaarde/Valerur limite bioloique (Belgien)
BGW/VGÜ	Biologischer Grenzwert, Verordnung des Bundesministers für Arbeit und Soziales über die Gesundheits-überwachung am Arbeitsplatz (Österreich)
BHT	Butylhydroxytoluol (2,6-Di-t-butyl-4-methyl-phenol)
BOD	Biochemical oxygen demend (biochemischer Sauerstoffbedarf –BSB)
BSEF	Bromine Science and Environmental Forum
Bw	Body weight (Körpergewicht)
bzw.	beziehungsweise
ca.	circa/zirka
CAS	Chemical Abstract Services
CEC	Coordinating European Council for the Devolopment of Performance Tests for Fuels, Lubricants and Other fluids
CLP	Classification, Lebelling and Packaging (Verordnung (EG) Nr. 1272/2008 über die Einstufung, Kennzeichnung und Verpackung von Stoffen und Gemischen)
GefStoffV	Gefahrstoffverordnung
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
JArbSchG	Jugendarbeitsschutzgesetz
LC	Lethal concentration
LD	Lethal dosage
MAK	Maximal workspace concentration
MCDP	Mono Crystal Diamond Powder
MuSchG	Mutterschutzgesetz
n.a.	Not applicable (nicht anwendbar)
n.g.	nicht geprüft
n.v.	nicht verfügbar
n.d.a.	No data available
n.t.	Not tested
NOAEL	No Observed Adverse Effect Level (Dosis ohne beobachtete schädigende Wirkung)
NOEC	No Observed Effect Level (Tierexperimentell festgelegte höchste Konzentration, bei der keine Wirkung (schädigender Effekt) mehr nachweisbar ist)

OECD	Organisation for Economic Cooperation and Development (Organisation für wirtschaftliche Zusammenarbeit und Entwicklung)
Org.	organisch
PVC	Polyvinylchlorid
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Verordnung (EG) Nr. 1907/2006 zur Registrierung, Bewertung, Zulassung und Beschränkung chemischer Stoffe)
Resp.	Respektive
RID	Reglement concernant le transport international ferroviaire de marchandises Dangereuses (Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr)
TRbF	Technical rules for handling flammable liquids
TVA	Technische Verordnung über Abfälle (Schweiz)
TWA	Time Weighted Average
UEV	Eidgenössisches Department für Umwelt, Verkehr, Energie und Kommunikation (Schweiz)
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods (die Empfehlungen der Vereinten Nationen für die Beförderung gefährlicher Güter)
UV	Ultraviolett
VbF	Directives for flammable liquids Verordnung über brennbare Flüssigkeiten (Österreichische Verordnung)
VeVA	Verordnung über den Verkehr mit Abfällen (Schweiz)
VOC	Volatile organic compounds (flüchtige organische Verbindung)
vPvB	very persistent and very bioaccumulative (sehr persistent und sehr bioakkumulierbar)
WGK	Water hazard class according to VwVwS (Wassergefährdungsklasse gemäß Verwaltungsvorschrift wassegefährdender Stoffe –VwVwS)
WGK3	severely hazardous to waters (stark wassergefährdend)
WGK2	hazardous to waters (wassergefährdend)
WGK1	low hazardous to waters (schwach wassergefährdend)
VCI	Chemical industry alliance (Verband der Chemischen Industrie e.V)
Wwt	wet weight (Feuchtmasse)
VwVwS	Verwaltungsvorschrift für wassergefährdende Stoffe
z. Zt.	Zu Zeit
z.B.	zum Beispiel

This data sheet was written according to 2001/58/EG and TRGS 220. The information in this data sheet shall describe the product with respect to the required safety aspects. The information is not intended to assure certain product properties. The information was collected to the best of the manufacturer's knowledge. They shall not be modified nor applied to other products. No liability.